THE MINISTRY OF RURAL DEVELOPMENT (DEPARTMENT OF RURAL DEVELOPMENT) (UTTAMBHAI H. PATEL): (a) Government of Andhra Pradesh had submitted a proposal for providing assistance of Rs. 186 crores (Rs. 51 crores under the Minimum Needs Programme and Rs. 135 crores (including Rs. 22.56 crores on account of escalation of cost of the on-going schemes) under Accelerated Rural Water Supply Programme in a phased manner over a period of 3 years from 1992-93 to 1994-95.

(b) The additional provision under Minimum Needs Programme is to be provided by the State Government out of its overall plan resources. The cost of escalation of schemes under Accelerated Rural Water Supply Programme is also to be met out of Minimum Needs Programme. The guidelines for implementation of Accelerated Rural Water Supply Programme do not provide for utilisation of Accelerated Rural Water Supply Programme funds to meet escalation in cost. The original cost of the on-going Accelerated Rural Water Supply Programme Schemes is to be met out of the normal annual allocation under ARWSP released to the State Government on year to year basis.

Extraction of fullerence from Coal

489. SHRIMATI KAMLA SINHA: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that the novel materials like fullerence can be produced from Coal and the cost of production is very low which has many potential applications;

(b) if so, whether Government have initiated any research in producing fullerence from Coal; and

(c) the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY DEPARTMENT OF ELECTRONICS AND DEPTT. OF OCEAN DEVELOPMENT AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI P.R. KUMARAMANGALAM): (a) At present Fullerenes have been produced by vapourizing graphites by passing high current through graphite electrodes in an atmosphere of helium. Soot collectd is digested with an organic solvent such as tolune. Solid obtained after removing the solvent contains Fullerenes. Details about recovering Fullerenes from Coal are not available at the present time through a report has appeared recently.

(b) and (c) Research on Fullerenes is being done at various institutions and national laboratories: Indian Instt. of Science, Bangalore; Indira Gandhi Centre for Atomic Research, Kalpakkam; National Chemical Laboratory, Pune; Bhaba Atomic Research Centre, Bombay; Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore; Banaras Hindu University, Varanasi; Institute of Mathematical Sciences, Madras.

Indian scientists are involved in this frontline research and have made original contributions, some of which are mentioned below:

— Possibility of metal complexes of C_{60},

— New Species of Fullerenes containing only carbon and Nitrogen;

— Novel views on the electronic structures and bonding in C_{60} and its components;

— Interesting theories on super-conductivity in Cages.

Expenditure on Research and Development Activities in Government Laboratories

490. SHRIMATI KAMLA SINHA: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that the Research and Development expenditure

of Rs. 4000 crores per annum in the various Government Laboratories has not yielded adequate commercial returns; and

(b) if so, what steps Government propose to take in this regard?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY, DEPTT. OF ELECTRONIC AND DEPTT. OF OCEAN DEVELOPMENT AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI P. R. KUMARAMANGALAM): (a) No, Sir,

(b) Does not arise.

Projects Undertaken by C.S.I.R.

491. SHRI KRISHAN LAL SHARMA: Will the PRIME MINISTER be pleased to state:

(a) the details of the various projects undertaken by C.S.I.R. during the last 3 years;

(b) the progress of each project as on date;

(c) whether it is a fact that a number of projects have been dropped if so, the reasons therefor; and

(d) the action Government have taken or propose to take to ensure that the projects once taken up are not dropped and are completed in time?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY, DEPTT. OF ELECTRONICS AND DEPTT. OF OCEAN DEVELOPMENT AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI P.R. KUMARAMANGALAM): (a) to (d) Information is being collected and will be laid on the Table of the House.

Cut in funds for Indigenous Research

492. SHRIMATI KAMLA SINHA: Will the PRIME MINISTER be pleased to state:

(a) whether Government are aware that the Scientific community has raised apprehension regarding cut in fund for indigeneous research;

(b) if so, what action Government have taken to increase allocation of funds for CSIR, Space Research etc. to alley their apprehension; and

(c) what percentage of GNP has been allocated during the last three years for the purpose?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY, DEPTT. OF ELECTRONICS AND DEPTT. OF OCEAN DEVELOPMENT AND MINISTER OF STATE IN THE MINISTRY OF PARLIAMENTARY AFFAIRS (SHRI P.R. KUMARAMANGALAM): (a) Yes, Sir.

(b) Government proposes to increase the allocation of funds for CSIR, Space Research etc. in 1993-94 as compared with allocations made in 1992-93.

(c) The requisite information is given in the statement given below.

Statement

Expenditure on Research & Development by the Central Sector and State Sector in relation to Gross National Products

Year	Percentage of GNP
1988-89	0.839*
1989-90	0.814**
1990-91	0.781**

* GNP figures taken from Economic Survey.

**GNP figures taken from quick estimate of Central Statistical Organisation.